COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN RE THE MATTER OF:

THE INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC AND KENTUCKY UTILITIES COMPANY	)))	CASE NO. 2003-00051

COMMENTS OF THE ATTORNEY GENERAL

In April 2003, East Kentucky Power Cooperative (EKPC) filed its 2003 Integrated Resource Plan (IRP) covering its future plans to meet the power needs of its 17 member cooperatives. The integrated plan includes a load forecast, and the cooperative's plans for both supply and demand side resources to meet projected future needs. The Office of Attorney General of the Commonwealth of Kentucky has reviewed these plans and offers the following comments.

The Kentucky Pioneer project conundrum

EKPC has filed this Integrated Resource Plan at a critical juncture for the utility. The utility's load is growing rapidly, at about 100 MW per year, making it one of the fasting growing utilities in the country. As a result, EKPC must be actively involved in finding the least cost resources to meet its growing demand. Meanwhile, the EKPC planning process has been left hanging in uncertainty over the availability and timing of availability of Kentucky Pioneer Energy (KPE) project. The KPE project would add 540 MW of 85% capacity factor baseload power to a relatively small generating system IF, and that is a big if, it comes to fruition. Because the KPE project has continued to miss deadlines, EKPC has had to turn to other options to meet capacity needs.

The KPE project has been omitted from the 2003 EKPC IRP even though the project has not been completely terminated in order to resolve the uncertainty in the planning process that the project represents. That omission is appropriate because it allows EKPC to move ahead in planning an optimum system with generating sources that will actually be available. Should the KPE project become viable, EKPC can then evaluate the project to see whether it both fits into EKPC's needs and is the lowest cost option.

Baseload v peaking capacity and the role of fuel price estimates.

EKPC, like other utilities, has relied on its IRP to justify new plant additions even though the IRP is a static document that is prepared only every three years. With or without the KPE project, the EKPC planning process is a dynamic and constantly changing process and the Integrated Resource Plan is only as good as the inputs at the time it was prepared. If the underlying data changes, the conclusions reached based on old data are no longer valid as a justification for new plant additions.

The 2003 IRP was prepared using fuel price estimates prepared in 2002. Natural gas prices have risen dramatically since 2002. Although we have experienced a cool summer and demand for natural gas has been low, prices have remained high and are projected to rise even higher this winter. Alan Greenspan, Chairman of the Federal Reserve Bank, has stated that higher natural gas prices are here to stay and that a return to the prices of 2002 should not be expected.

Table I-11 on page 11 of Appendix I shows the projected fuel prices for combustion turbines. Natural gas prices today are in the range of prices listed as "High Fuel Cost" instead of the "Probable Fuel Cost," which was based on 2002 prices, listed and used in the optimal case scenario in the IRP. This issue was addressed in the Informal Conference held at the PSC on

August 19, 2003. In that conference, EKPC representatives agreed that in 2003 the costs listed in Table I-11 as "High Fuel Cost" are now more consistent with current gas prices and are more representative of probable future fuel costs than are the costs actually utilized in the IRP analysis as the Probable Fuel Costs.

The major increase in natural gas prices has significant implications for the findings made in the 2003 IRP. Table 9-1 on page 112 of the IRP lists the six planning scenarios considered by EKPC. In this analysis, Scenario 5 was found to have the lowest cumulative net present value cost over the planning period. But Scenario 5, which EKPC is calling its optimum generation plan, is based on old fuel cost projections that are too low. The EKPC analysis summarized in Table 9-1 of the IRP shows that given today's fuel prices, Scenario 1 offers a $73.6 million savings over Scenario 5 (the optimum case per the 2003 IRP) and almost double the savings over the Base case.

The significant change in fuel prices leads to the question of whether the EKPC optimum resource plan in its 2003 IRS is Scenario 5 (as put forth in the IRP based on old fuel costs) or whether it is actually Scenario 1 (which reflects current fuel costs). Scenarios 1 and 5 are very different. Scenario 5, considered the optimum plan in the 2003 IRP, calls for the addition of 7 combustion turbines before the next increment of baseload capacity is added in 2011. Scenario 1, the optimum plan considering current fuel prices, calls for the addition of just 2 combustion turbines in 2005 before baseload capacity is added in 2007.

EKPC uses its IRP as the primary justification for proposed capacity additions in certificate cases the company files before the PSC. EKPC recently filed a certificate case, Case No. 2003-00297, in which it seeks permission to add two combustion turbines by 2005. In that case, EKPC relies on the 2003 IRP to justify the need for the two new units. As both Scenarios 1

and 5 call for the addition of two combustion turbines in 2005, the change in fuel price presents no problem for that addition of capacity. But once that capacity is added, a serious divergence in planning arises.

While Scenario 5 calls for five more peaking units to be added before a baseload unit in 2011, Scenario 1 calls for a baseload unit to be the next unit added in 2007 and shows no need for more peaking capacity until 2009.

In Case No. 2003-00297, EKPC is still relying upon Scenario 5 for its planning despite the change in gas prices and the impact of that change on the planning process. In Case No. 2003-00297, EKPC witness David Eames states on page 3 of his testimony, "EKPC's expected resource additions to meet its capacity needs are shown in Table I-22, page 23 of Appendix I in EKPC's 2003 IRP." Table I-22 is Scenario 5 and is based on old, lower natural gas prices. On page 4 of his testimony, Mr. Eames goes on to state that EKPC intends to file a separate Certificate seeking to add another 100 MW of capacity. This capacity would also be peaking capacity based on Proposal 1 from the RFP.

Thus, the problem presented by whether continued reliance on the 2003 IRP results is appropriate given the change in fuel prices will soon be before the Commisison. If EKPC should be relying on Scenario 1 rather than Scenario 5 in light of the current gas prices, no new peaking capacity is needed until 2009. Instead, baseload capacity is the next increment of power needed on the EKPC system, not the peaking capacity offered in Proposal 1. Because the current gas prices are not accurately reflected in the 2003 IRP, the Commission should put EKPC on notice that if EKPC intends to file a Certificate case for peaking capacity, it will have to demonstrate why Scenario 1 of the IRP should not be followed.

RFP No. 2002-02 was issued on December 17, 2002 for peaking power only. If EKPC should be adding baseload rather than peaking capacity as its next increment of capacity, EKPC will need to issue a new RFP for baseload capacity to determine the most cost effective way of meeting its 2007 baseload capacity need.

Furthermore, if baseload capacity should be the next increment of power needed, the issue of KPE resurfaces. EKPC has suggested in Case No. 2003-00030 (pertaining to the construction of the Gilbert plant) that 2009 is a more realistic estimate of when KPE could actually come on line. If an increment of baseload capacity is to be the next capacity on EKPC's horizon, any bid from KPE should only be considered if the project has finished its permitting and has obtained financing. EKPC does not need to consider KPE if it continues to be uncertain in its availability.

The Generation Planning Methodology:

The generation planning methodology being used by EKPC presents two concerns. Other utilities use some type of methodology that optimizes the long-range plan but then fine tunes the plan to be assured that capacity is being added at the optimum time to provide the lowest cost to ratepayers. For example, in the recent integrated resource planning done by Union Light Heat and Power, it ran 2800 scenarios to optimize its planning. In contrast, EKPC presented just 6 scenarios in its IRP. The six scenarios are all completely different options for EKPC. This type of approach may be appropriate to use as an initial screening to define a path, but then optimization should be done to fine-tune the scenario.

If, for instance, the initial screening determined Scenario 5 to be the best plan for generation addition, then optimization should have been run to see whether it would be most appropriate to add the next baseload unit in 2008, 2009, 2010, 2011, 2012, or 2013, etc. In

response to data requests, EKPC was unable to provide any documentation demonstrating why the baseload unit was optimum in Scenario 5 in 2011 as opposed to any other year. If EKPC plans to continue to use this planning methodology, a fine tuning component needs to be added to the end of the process to optimize the selected plan.

A second problem with the planning methodology used by EKPC arises from timing. The methodology used adds new generating assets during the first 15 years of the model and then runs the model an additional 5 years to capture end effects. In the 2003 IRP, new capacity additions were made in each of the six scenarios through 2017. Then the model ran each scenario, with its generation additions, an additional 5 years to 2022. The costs in each year through 2022 were brought back to present day values using a discount rate and the years were added together to arrive at a Net Present Value for each scenario. This approach does a poor job of capturing end-effects for baseload capacity.

Baseload plants are expensive to build but, over the long run, lower fuel costs make them a bargain. So if end effects are not properly captured by the methodology used, the benefits of long-term investments in more expensive baseload capacity are not included in the analysis. This results in a bias against scenarios with greater baseload capacity, especially if that capacity is added late in the scenario. For example, in the 2003 EKPC IRP, Scenarios 1, 3 and 4 add baseload capacity late in the plan, in 2015. The analysis in each of these three scenarios is biased by including only seven high-cost early years after the 2015 baseload addition and none of the later years when the real benefits of this capacity are realized.

At a minimum, the EKPC planning model should examine 20 years beyond when the last baseload unit is added to capture its end effects. While it is true that discounting the contribution for any one of these additional years back to present dollars means that the contribution for that

year would be small, the cumulative effect of all additional years could be significant. The maximum spread between the six scenarios examined was only $50 million. Thus, it is important to accurately assess each scenario fully.

Between the use of natural gas prices that were too low and the methodology bias against baseload capacity resulting from the failure to capture all of the end effects, it appears highly unlikely that Scenario 5 is EKPC's optimum plan. The Commission should be extremely skeptical of any application made by EKPC that is based on Scenario 5 from its 2003 IRP.

Carbon Dioxide Emissions and Renewable Energy Resources

Like all utilities, EKPC faces the threat of Global Climate Change legislation. Most efforts worldwide use 1990 carbon dioxide emission levels as a benchmark. While most proposals in this country target getting back to 1990 emissions levels, the Kyoto Protocol actually calls for reductions of 7% below this benchmark. Should such legislation come to pass, EKPC would face major expense to comply. EKPC expects to be at double its 1990 emissions levels by 2010 and nearly triple the benchmark by 2020. While EKPC has begun making efforts to reduce carbon dioxide emissions with the EnviroWatt program and the landfill gas generators, these efforts only account for about 2% of EKPC's annual emissions.

EKPC's high growth rate can be either a major problem or a major opportunity with respect to carbon dioxide emissions. EKPC has a range of renewable energy options that could reduce the resulting emissions. EKPC has taken a leadership role in the Commonwealth in the use of renewable energy options by pursuing landfill gas generation. EKPC was also among the first to bring Green Pricing programs to Kentucky. But, there are many other renewable energy opportunities that EKPC could pursue.

EKPC's new Gilbert plant has a fluidized bed boiler that can burn biomass as well as coal. In the Informal Conference held at the PSC on August 19, 2003, the issue of burning wood waste at Gilbert was discussed. EKPC said that it would be more than willing to burn this renewable fuel mixed with coal in the Gilbert unit if it could obtain a reliable supply at a reasonable cost. However, EKPC representatives were unsure about the availability of this material and how to secure this fuel because, unlike the coal, there are no wood waste brokers to bring the needs of the utility together with the ability of a supplier to meet those needs. The use of wood waste at the Maysville facility could be of benefit to EKPC, to the environment, and to the hardwood industry located in the EKPC territory. Currently, sawmills located in EFPC territory pay expensive freight bills to ship sawdust to Chillicothe, Ohio or Hawesville, Kentucky. These sawmills are members of East Kentucky Power's distribution cooperatives and use EKPC generated power. Finding a way to bring their wood waste supply and EKPC's demand together for use at the Gilbert plant presents a potential win-win opportunity that should be considered.

Another renewable energy option with significant potential for EKPC is hydropower. This resource should be considered by EKPC because it is the only renewable option available today that could supply enough power to replace other fossil-fuel additions called for in the IRP. In the 2000 IRP EKPC considered an option for 163 MW of run-of-river hydropower. In the 2000 IRP this was one of the more attractive baseload options, but the 2000 plan didn't require any additional baseload capacity due to the dependence on the KPE project. Though the KPE project is not a part of the 2003 IRP plan, 2003 IRP failed to consider this hydro option from the 2000 plan. In response to a data request, EKPC said that the run-of-river Hydro option was

unavailable when the IRP was being prepared but is now available again. The company has entered discussions with this potential power supplier.

When EKPC considers hydro options, it needs to factor in the absence of carbon dioxide emissions. If an option like this hydro project is close in cost to other options being considered, selection of the renewable option would have the added advantage of lowering EKPC's carbon dioxide emissions and the associated potential liability.

The potential liability posed by limitation on carbon dioxide emissions for EKPC is significant. In the past, EKPC speculated that members' rates could double were carbon dioxide limits to be imposed that would require that EKPC return to 1990 emission levels. The potential liability should carbon dioxide limits be imposed and the probability that limits will be imposed means that prudent planning for EKPC should include a cost for a potential carbon tax. At a minimum, a sensitivity analysis scenario with a carbon tax should be included to show which generation options would reduce this potential cost.

Another renewable option that EKPC is considering is wind. An EKPC contractor is currently monitoring wind speeds at potential wind sites in Eastern Kentucky to determine the feasibility of possible wind projects. While EKPC should be encouraged to pursue this clean renewable option, it is unlikely that wind generators will initially be cost competitive in the EKPC service territory. Even so, EKPC should gain experience with the rapidly emerging wind technology. As the technology improves, wind may become cost competitive with the fossil fuels for EKPC. In the meantime, wind projects should be considered for inclusion in EKPC's EnviroWatt program where a rate premium will help offset any higher costs associated with wind. EKPC might also consider bringing the higher cost of wind generation down by averaging it with lower cost renewables like hydro and landfill gas to develop a renewable portfolio. A

renewable portfolio would make the EnviroWatt program more affordable and thus encourage more participation.

EKPC should also encourage its member cooperatives to offer a Net Metering rate to encourage small-scale renewable energy. Net Metering can make it much more attractive for end use members to install their own renewable energy generators. Because the distribution cooperatives are owned by the members and in business to serve the needs of end use members, a program of this sort would make sense. A Net Metering tariff would help the end use members, help the cooperative, and help the environment. EKPC should work with its distribution cooperatives to help develop and file Net Metering tariffs.

Respectfully submitted,

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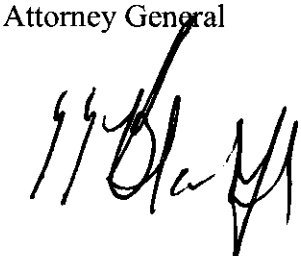

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NOTICE OF FILING AND CERTIFICATE OF SERVICE

I hereby give notice that I have filed the original and ten true copies of the foregoing Comments with the Executive Director of the Kentucky Public Service Commission at 211, Sower Boulevard, Frankfort, Kentucky, 40601 and certify that the parties have been served this 30th day of September, 2003, by mailing a true copy of the Comments to the following:

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